

**Translation**

**PATENT COOPERATION TREATY**

PCT/JP2003/015568



**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 31584-P02324	<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/JP2003/015568	International filing date (day/month/year) 04 December 2003 (04.12.2003)	Priority date (day/month/year) 13 December 2002 (13.12.2002)	
International Patent Classification (IPC) or national classification and IPC B25J 15/04, H05K 13/04			
Applicant  MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>4</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 30 April 2004 (30.04.2004)	Date of completion of this report 28 October 2004 (28.10.2004)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/015568

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☒ The international application as originally filed/furnished

☐ the description:

pages \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the claims:

pages \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the drawings:

pages \_\_\_\_\_, as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:
  - ☐ restricted the claims.
  - ☒ paid additional fees.
  - ☐ paid additional fees under protest.
  - ☐ neither restricted nor paid additional fees.
2. ☐ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
  - ☐ complied with.
  - ☒ not complied with for the following reasons:

Claims 1 and 2 describe a tool exchange device and claim 3 describes a tool.

The technical feature of claim 1, 2 is in the structure of a device for exchanging tools and there is no description concerning the tool to which the exchange device relates. On the other hand, the technical feature of claim 3 is in the structure of the tool itself in the electronic component mounting apparatus and it is not described whether this is a special tool to be used together with the tool exchange device described in claims 1 and 2 or a tool suitable for using the tool exchange device.

Therefore, no relationship between the features of claims 1 and 2 and the features of claim 3 can be established and there is no common feature that can be considered as a special technical feature in accordance with the meaning of Article 2 of PCT Rule 13.2. Therefore, a technical relationship among those different inventions in accordance with the meaning of PCT Rule 13 cannot be found.

Accordingly, claims 1 to 3 clearly do not fulfill the requirement of unity of invention.

4. Consequently, this report has been established in respect of the following parts of the international application:

☒ all parts.

☐ the parts relating to claim No. \_\_\_\_\_

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	1-3	YES
	Claims		NO
Inventive step (IS)	Claims	2	YES
	Claims	1, 3	NO
Industrial applicability (IA)	Claims	1-3	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

Document 1: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 18357/1990 (Laid-open No. 109784/1991) (Yamagata Casio Co., Ltd.), 11 November, 1991, pages 5 to 6, 11 to 15; Figs. 5 to 8 (Family: none).

Document 2: Microfilm of the specification and drawings annexed to the request of Japanese Utility Model Application No. 110483/1979 (Laid-open No. 28894/1981) (Nachi-Fujikoshi Corp.), 13 August, 1981, pages 5 to 6, 9 to 10; Figs. 3 to 5 (Family: none).

Document 3: JP, 2000-24975, A (Director General, Agency of Industrial Science and Technology), 25 January, 2000. Par. Nos. [0017] to [0019]; Figs. 2 to 6 (Family: none).

## &lt;Claim 1&gt;

The invention of claim 1 does not appear to involve an inventive step based on document 1 and document 2.

The assumed configuration is described in document 1. A "support stand 4" supported by directly placing a full-suction nozzle 3 (equivalent to a "tool") in document 1 is equivalent to a "holding portion 11" in the invention of claim 1, and an "engaging groove 3a2" provided in the body of the full-suction nozzle in document 1 is equivalent to the "step portion" in the invention of claim 1.

The configuration for holding with a three-point support and moving means for moving an engaging member between the engagement position and disengagement position is described in document 2.

Here, selecting a L-like cross-sectional shape of the engaging groove in document 1 is merely a small design variation in a specific implementation of the configuration.

## &lt;Claim 3&gt;

The invention of claim 3 does not appear to involve an inventive step based on document 1 and document 3.

Selecting a L-like cross-sectional shape of the engaging groove in document 1 is merely a small design variation in a specific implementation of the configuration. Further, a configuration in which the engaging portions are provided so as to face the radial direction and to be parallel to each other is described in document 3.

As for the tool shape described in claim 3, because the configuration of the operation section is not clear, it cannot be considered as limited to a configuration comprising no member protruding in the radial direction of the tool beyond the step portion with an L-like cross section, as is claimed in the Written Response.

## &lt;Claim 2&gt;

The invention of claim 2 is not described in any of the documents cited in the ISR and is not obvious to a person skilled in the art.